



Economic Research-Ekonomska Istraživanja

ISSN: 1331-677X (Print) 1848-9664 (Online) Journal homepage: http://www.tandfonline.com/loi/rero20

# Opportunities for tourism development and cooperation in the region by improving the quality of tourism services - the 'Danube Cycle Route' case study

Aleksandra Vujko & Tamara Gajic

To cite this article: Aleksandra Vujko & Tamara Gajic (2014) Opportunities for tourism development and cooperation in the region by improving the quality of tourism services – the 'Danube Cycle Route' case study, Economic Research-Ekonomska Istraživanja, 27:1, 847-860, DOI: 10.1080/1331677X.2014.975517

To link to this article: http://dx.doi.org/10.1080/1331677X.2014.975517

n	
Ο	
-	

© 2014 The Author(s). Published by Taylor & Francis

0	-	0
	т	
п	т	П
	т	
_	-	_

Published online: 27 Nov 2014.

Ø

Submit your article to this journal 🖸

Article views: 467



View related articles 🗹



View Crossmark data 🗹

Full Terms & Conditions of access and use can be found at http://www.tandfonline.com/action/journalInformation?journalCode=rero20

## Opportunities for tourism development and cooperation in the region by improving the quality of tourism services – the 'Danube Cycle Route' case study

Aleksandra Vujko\* and Tamara Gajic

Novi Sad Business School, Vladimira Perica Valtera 4, 21000 Novi Sad, Serbia

(Received 26 April 2013; accepted 7 October 2014)

The Danube Cycle Route connects countries, various cultures and traditions and has favourable trends in the development of tourism in the region. Improving the quality of supply of the Route in the Bijelo Brdo (Croatia) - Petrovaradin (Serbia) section, in terms of investment in road infrastructure, signs for tourists and designing thematic maps and guides, might strengthen cross-border cooperation between Croatia and Serbia, which would result in a direct impact on tourism and the economy of both countries. After analysing the current situation of the quality of supply, on the aforementioned relation, the aim of this study was to design a series of measures to improve cycle tourism. For the purpose of this paper the survey was conducted during the year 2010, where foreign tourists - cyclists from eight countries - participated. The cyclists were asked to analyse the condition of the Route in the section Bijelo Brdo – Petrovaradin. The initial hypothesis was that that the existing tourism supply is on a relatively poor level of development, and that long-term positive effects in this part of the region can be achieved by some strategic measures to enhance the quality. This work will result in the synthesis of theory, statistical methods, and secondary publications since the analysis of the obtained data may lead to the confirmation of the main hypothesis. The survey method is used in the study, whereas the chi-square test is used to determine the frequency of specific deviations. The reliability of the scale is assessed by Cronbach's alpha coefficient, and the confirmatory factor analysis is applied to assess the validity.

Keywords: tourism; cycling; quality improvement; 'Danube Cycling Route'

JEL classification: L83, O18, Q01

### 1. Introduction

The consideration of tourists' needs during the provision of service can be seen as respecting the consumer. In terms of major changes and increasing international competition, which is in turn a direct consequence of globalisation and internationalisation, the quality has become the imperative for survival, growth and development. Keeping up with the pace of change is the assumption for survival within those business processes that are under the constant influence of the environment. If something changes with the aim, it is logical to assume that it also gets improved. Cycling has become a very attractive sports and recreational activity that attracts millions of direct participants (Matthew, 2009; Paul et al., 2009; www.tia.org). The quality of tourist space dedicated to cycle

© 2014 The Author(s). Published by Taylor & Francis.

<sup>\*</sup>Corresponding author. Email: aleksandravujko@yahoo.com

This is an Open Access article distributed under the terms of the Creative Commons Attribution License http://creativecom mons.org/licenses/by/3.0/, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The moral rights of the named author(s) have been asserted.

tourism can be evaluated during its use. Those who provide assessments are always consumers (cyclo-tourists), primarily through the satisfaction of roads, tourist signs, tourist maps and guides. The research was conducted on the part of the Route that passes through the Vukovar-Srem County (Croatia), and then across the border at the Ilok checkpoint and continues through the Backa-Srem County (Serbia). The aforementioned area starts from the village Bijelo Brdo (Croatia) and goes to Petrovaradin (Serbia) a distance of about 120 km and includes all attractions of the Vukovar-Srem-Backa plains. The current project, 'Enhancing the International Danube Cycling Route - Cycling Danube', deals with the importance of the area, and is a project funded by the European Commission under the IPA II Component for cross-border cooperation between Croatia and Serbia (www.croatia-serbia.com). The aim of the project is the development of recreational tourism in Eastern Slavonia (Croatia) and the autonomous province of Vojvodina (Serbia). Bearing in mind the significance that the Danube Cycling Route has and can have on the economic development of both countries, the primary goal of this study is to investigate the state of quality of roads in this section, the state of the existing road signs and existing tourist maps and guides, and assess their significance for the development of the area. The survey conducted in 2010 was focused on the development of international cycle tourism, aimed at the tourist prosperity of Serbia and Croatia. It was also focused on raising awareness about this form of tourism as environmentally friendly. Therefore, the target group of participants were foreign tourists who were cycling on the mentioned of the Route. There were 175 participants in total and the analysis of data obtained by direct examination confirmed the hypothesis.

## 2. Literature review

In the contemporary world, The needs of people are becoming more diverse and can be difficult to satisfy. Today's increasingly demanding tourists insist that the services necessary to meet their needs should have the right quality, and whose level increases with the development of society and the development of the material standards. The model of tourism development in the region is based on the frameworks and principles of total quality assurance, and it must include the need to ensure guest satisfaction with the quantitative and qualitative factors of supply, the satisfaction of the local tourism participants expressed through opportunities for professional development and productive employment, satisfaction with local population, always taking into account the quality of the environment by pointing out the positive and negative impacts of tourism on the environment, and so on (Gajic, 2009). According to many theorists, sport and recreational tourism is a widespread phenomenon with significant social, economic and ecological impacts. Due to the high demand for various forms of sport and recreational tourism, it has become a substantial element in almost every tourist region and an important part of socio-economic regional development. Many regions, especially in rural areas, depend on sport and recreational tourism (Gajic, 2010; Hudson, Hinch, Walker, & Simpson, 2010; Tuppen, 2000; Vujko, 2012; Wasche & Woll, 2010). In addition to many psychological effects, sport and recreation have multiple effects on biochemical mechanisms (Gibson, 2004; Lynch & Morrison, 2007; Stokes, 2006; Vujko & Plavsa, 2011a; Wasche & Woll, 2010; Weed, 2001, 2008a, 2008b, 2011). Thus, sport and recreational tourism is the specific form of tourism in which sport and recreation are basic motifs of travel and staying at a destination. Sport and recreational tourism involves tourists doing sport and recreational activities with the aim of satisfying the need for exercise, participating in games, active vacation, recreation, entertainment, etc. Concerning cycling in the context of a healthy lifestyle,

active leisure and recreation, there are many programmes that contribute to the development of tourism and tourist destinations (Hayward, 2001; Hudson, 2003; Matthew, 2009; Paul et al., 2009; Ritchie & Hall, 1999; Simonsen & Jorgenson, 1998; Torkildsen, 2005; 2008b. Vujko & Plavsa, 2011b; Vujko, 2011; Weed, 2008b; Weed & Bull, 2004). The concept of a tourist destination is usually associated with a particular geographic area in which it is possible to experience different forms of experience (Botti, Peypoch, & Solonandrasana, 2008; Cracolici & Nijkamp, 2009; Vujko, 2012, www.destinationmarket ing.org). The Danube Cycling Routes is part of a broader concept of development of regional GTZ projects in four countries: Croatia, Serbia, Romania and Bulgara, and is particularly important for the overall development of tourism and tourism supply, as well as for the connection of the Danubian regions in these countries, whose tourist facilities are still not used enough, particularly those associated with the great European river.

#### 3. Research methodology

The research was a combination of quantitative methods (statistics and web analysis) and qualitative methods (questionnaire, discussion and written documents). Bibliographic method was used in the phase of defining the theoretical framework, and descriptive method for data processing and results interpretation. The research of the quality of tourism supply on the Route was conducted in 2010 and was a part of research project conducted by the authors of this paper in cooperation with the private farm for rural tourism, Savic, from Bijelo Brdo (Croatia) and the Cycling Association of Vojvodina from Novi Sad (Serbia). The survey data were collected by the survey method. The sample included 175 participants from eight countries. By applying the appropriate research instruments the survey included variables that were primarily concerned with the participants' opinions about the quality of the section Bijelo Brdo – Petrovaradin. During the summer period (June–September), the participants were registered in the premises of the Savic farm, after which they continued to Petrovaradin (Serbia).

The surveying process included only foreign tourists who planned to cross from Croatia to Serbia on their cycle route. The participants were told that they would be asked a certain group of questions in Petrovaradin, so they were asked in advance to pay attention to every detail of the Route with the aim of its subsequent improvement. The questionnaire consisted of the questions divided into independent and dependent variables. In the first part, the processing and analysis of the independent variables was conducted, which are related to gender, country of origin, age and the number of cyclists travelling alone or in a group. In the second part the processing and analysis of the dependent variables was done. The variables reflect the opinion of the participants about the quality of the roads on the section Bijelo Brdo to Petrovaradin with the assumption that the data can be projected to any other section in Serbia and Croatia. The following groups of variables related to the quality of the road signs, reasons for the selection of marked paths and cycling with maps and tourist guides, as well as the lack of available signals and the currently available maps and guides to the mentioned area. The obtained data were analysed by appropriate statistical methods, which were descriptive and comparative in nature, enabling the explication of the research results and the performance of certain conclusions.

One form of the analysis of the data was the chi-square test (Pearson Chi-Square Test). It was used to determine whether a received (observed) frequency (the responses of male participants compared with female participants' answers, their age structure and the origin country) deviated from the frequencies that were expected. This test aimed to check if there is a connection among groups of participants and the probability of connection. In this paper, we assumed that there would be no difference in the responses regarding participants' gender or origin country but that differences might exist in the responses in relation to the age structure. This test aimed to check if there is a connection among these four groups of participants and the probability of connection. Practice is to always start from the premise that there are certain values of the difference in responses. In order to detect differences in the responses measured on the basis of statistically significant differences in the distribution of the dependent variable in relation to independent, Statistically significant differences are taken for those having p < 0.05. To determine the reliability of the research instrument we determined the Cronbach alpha coefficient of internal consistency of the questionnaire and Factor analysis. The study was based on the main hypothesis, H, that the quality of tourism in a given destination is at a low level, and that it is possible to determine the corrective measures and implement strategic actions for improving supply. This would further imply positive effects in the field of tourism, in the general economy and the economy of the region. Under this hypothesis certain lower-level hypotheses were set:  $h_1$  – the quality of the cycling road is not at a satisfactory level;  $h^2$  – signalling does not follow all the requirements for carrying out this form of tourism (not represented in the guidebooks, maps, the category of roads are not marked by weight and there is unmarked accommodation and catering facilities); h3 - visitors choose this route because of the road safety, the possibility of attractive scenery, security of equipment and for meeting other visitors.

## 4. Results and discussion

The survey was in the form of an open type, which meant an indefinite number of questionnaires conducted in the given period (June – September 2010), without a pre-determined number of tourists or questionnaires. The sample included 175 participants. The largest percentage of the participants (Table 1) came from the Netherlands (28 people – 16%) and Austria (27 people – 15.4%). All other countries were equally represented, and the least came from Slovenia (16 people – 9.1%) and Switzerland (16 people – 9.1%).

In order to detect differences in the responses measured on the basis of statistically significant differences in the distribution of the dependent variables in relation to

Country	No.	%
Germany	18	10.3
Slovenia	16	9.1
France	23	13.1
Austria	27	15.4
Poland	22	12.6
Netherland	28	16.0
Norway	21	12.0
Switzerland	16	9.1
Total	171	97.7

Table 1. Country of origin of cyclists, the number and proportion of cyclists.

independent variables, the results are shown depending on the gender of the participants and statistically significant difference is taken for those with p < 0.05. Regarding the number of members in the group, it is interesting that most participants were in a group of two members (62.3%), and the minority were in a group of *more* than three cyclists (7.4%), or one cyclist (8%). There was 20.6% of the participants in the group of three cyclists. The starting point of the Danube Cycle Route is located in Germany and then passes through Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria and Ukraine. From the spring of the Danube to the Black Sea, the Route is about 2875 km long. The part that passes through Serbia is 667 km long and ranges from Backi Breg near the Hungarian border and, following the Danube, comes to Bregovo (Bulgarian border). The length of the main Danube Cycling Route through Serbia is divided into seven stages (Table 2).

The part that passes through Croatia is 136 km long and ranges from Udvar on the Hungarian border and follows the Danube to Ilok on the Serbian border. The length of the main Danube Cycling Route through Croatia is divided into six stages (Table 3).

The survey included 101 men (57.7%) and 67 women (38.3%). Regarding the age structure of the visitors most (64.6%) was aged from 25 to 49, followed by 12.0% who were aged from 50 to 65, and the lowest numbers of the participants were aged 15 (4.8%), followed by those who were aged 65 (7.6%), and from 15 to 24 (9.7%).

After data processing related to the independent variables, the processing and analysis of the dependent variables was done in the next part of the paper. The comparisons of the responses were made in relation to gender, age structure and their country of origin, but

The section	n	km
1	Backi Breg (Hungarian border) – Sombor – Apatin	60
2	Apatin – Backa Palanka	124
3	Backa Palanka – Novi Sad	48
4	Novi Sad - Beograd	96
5	Beograd – Pancevo – Kovin – Stara Palanka – Ram	105
6	Ram – Veliko Gradiste – Golubac – Donji Milanovac	95
7	Donji Milanovac – Kladovo – Negotin – Bregovo (Bulgarian border)	139
Total		667

Table 2. The section of the 'Danube Cycling Route' in Serbia.

Source: www.donau-info.org.

Table 3.	The	section	of the	'Danub	e Cyc	ling	Route'	in	Croatia.
----------	-----	---------	--------	--------	-------	------	--------	----	----------

Th	le section	km
1	Udvar (Hungarian border) – Dubosevica – Topolje – Gajic – Draz – Batina – Zmajevac – Suza – Knezevi vinogradi	34
2	Knezevi vinogradi – Grabovac – Lug – Bilje	19
3	Bilje – Osijek – Nemetin – Sarvas – Bijelo Brdo – Dalj	30
4	Dalj – Borovo selo – Borovo – Vukovar	19
5	Vukovar – Sotin – Opatovac	17
6	Opatovac – Sarengrad – Ilok (Serbian border)	17
То	tal	136

Source: www.donau-info.org.

this paper presents only responses in relation to gender as well as responses that showed a certain difference, i.e. where p < 0.05. Table 4, Part 1 shows the evaluation of the quality of roads on the section that was the subject of research. Interestingly, there were no statistically significant differences in the responses of both genders p = 0.329 (Table 4, Part 2). The largest number of participants said that the roads are in a 'tolerable' condition (43.5%), while the responses that the roads are in good condition (25%), and that the roads are in very poor condition (25.6%) were equally represented. This is the refutation of the lower-level hypotheses, h1, that the cyclists are not satisfied with the quality of the roads. After comparing the responses in relation to gender, the comparison is done in terms of their age structure (Table 4, Part 3). There were no statistically significant differences in responses in terms of age structure, p = 0.008 (Table 4, Part 4).

Table 5, Part 1, provides an assessment of the quality of road signs in relation to gender. Unlike the scores for the quality of the roads, the participants, regardless of gender, said that the quality of the signals is in a very bad condition (Table 5, Part 2). The difference in response was observed only in quality evaluation in relation to the

		Part 1. sect	<b>Part 1</b> . Rating the quality of roads on the section: Bijelo Brdo - Petrovaradin			
		Excellent	Very well	Tolerated	Very bad	In total
Sex	Female	5	21	27	14	67
		3.0%	12.5%	16.1%	8.3%	39,9%
	Male	5	21	46	29	101
		3.0%	12.5%	27.4%	17.3%	60,1%
In total		10	42	73	43	168
		6,0%	25.0%	43.5%	25.6%	100.0%
Part 2.		Va	lue	df	Statistical significance	
Pearson Chi-Square Test		3.4	438	3	0.	<i>p)</i> 329
		Part 3. secti	Rating the qu ion: Bijelo Br	ality of road do - Petrovar	s on the adin	In total
		Excellent	Very well	Tolerated	Very bad	
Age structure	Under 15 years	2	0	5	2	9
		1.2%	0.0%	2.9%	1.2%	5.2%
	15-24	3	1	5	8	17
		1.7%	0.6%	2.9%	4.6%	9,8%
	25–49	4	31	46	32	113
		2.3%	17.9%	26.6%	18.5%	65.3%
	50-65	1	8	10	2	21
		.6%	4.6%	5.8%	1.2%	12,1%
	Over 65 years	0	3	9	1	13
		.0%	1.7%	5.2%	0.6%	7.5%
In total		10	43	75	45	173
		5,8%	24.9%	43.4%	26.0%	100%
Part 4.		Value		df	Stat	istical
Pearson Chi-Square Test		27.	018	12	0,	008

Table 4. Rating the quality of roads on the section Bijelo Brdo - Petrovaradin.

		<b>Part 1.</b> Rating the quality of road signs		
		Tolerated	Very bad	In total
Sex	Female	5	62	67
		3.0%	37.6%	40.6%
	Male	10	88	98
		6.1%	53.3%	59.4%
	In total	15	150	165
		9.1%	90.9%	100,0%
Part 2.		Value	df	Statistical significance ( <i>p</i> )
Pearson Chi-Square Test		0.362	1	0.547

Table 5.	Rating	the	quality	of roa	d signs.	
----------	--------	-----	---------	--------	----------	--

Source: Research by authors.

Table 6. R	Rating the o	quality of :	road signs	regard to	country of	origin of t	he participants.
------------	--------------	--------------	------------	-----------	------------	-------------	------------------

		<b>Part 1</b> . Rating the quality of road signs with regard to country of origin of the participants		
		Tolerated	Very bad	In total
Country of origin of cyclists	Germany	6 3.6%	11 6.7%	17 10.3%
	Slovenia	1 .6%	14 8.5%	15 9.1%
	France	1 0.6%	22 13.3%	23 13.9%
	Austria	2 1.2%	23 13.9%	25 15.2%
	Poland	3 1.8%	18 10.9%	21 12.7%
	Netherland	2 1.2%	25 15.2%	27 16.4%
	Norway	0	21	21
	Switzerland	0	16 9.7%	16 9 7%
In total		15 9.1%	150 90.9%	165 100%
<b>Part 2.</b> Pearson Chi-Square Test		Value 19.371	df 7	Statistical significance ( <i>p</i> ) 0.007

Source: Research by authors.

country of origin of the participants (Table 6, Parts 1 and 2). Here, it can be seen that participants from different countries (Norway and Switzerland) unanimously rated the quality of the signals in a very poor condition, while the other participants in a very small percentage responded that the state of signalling is 'bearable'.

## 854 A. Vujko and T. Gajic

Table 7 shows the responses to the question about the quality of maps and guides. Similar to the previous answers, the participants were not satisfied with the quality of existing maps and guides. In order to obtain a clearer picture of the shortcomings of the quality of the signals on the section and the quality of the tourist maps and guides, the participants were asked an open question about the shortcomings. Tables 7 and 8 (Parts 1 and 2) show that there is no difference in responses in relation to gender, and that all participants had similar responses.

The biggest gaps in the opinion of the participants were: accommodation facilities are not marked (on the road and on the maps and guides), restaurants are not marked, lack of grading severity of certain parts of the route in Serbia and Croatia, as well as the lack of gradation level of attractiveness of natural and cultural attractions. It can be concluded that the second hypothesis of lower rank is confirmed. One of the main issues was the question of the opinion of the participants on the reasons for selecting to cycle on those roads that are well marked with signage and with the help of updated maps and guides (hypothesis of lower rank 3).

From Table 9, Part 1 it can be seen that the majority of participants (67.5%) said that one of the main reasons for this is the security of the cyclists. Therefore, safety is

Responses	No. of participants	%
Yes	7	4.0
No	157	88.7
I cannot judge	8	4.5
In total	172	97.2
Missing	5	2.8
In total	177	100

Table 7. Satisfaction with the quality of existing maps and guides.

Source: Research by authors.

Table 8. Opinion about what is missing with existing signalling and existing maps of a given space.

		Part 1. What is	missing with exis give	ting signalling and exact space?	isting maps of a	
		There is no representation of types of accommodation facilities	There is no representation of restaurants and other shops	There is no representation of the degree of difficulty of some parts on the Route	The lack of tonal attractiveness of natural and cultural sites	In total
Sex	Female	20	19	15	13	67
		12.0%	11.4%	9.0%	7.8%	40.4%
	Male	19	28	27	25	99
		11.4%	16.9%	16.3%	15.1%	59.6%
	Total	39	47	42	38	166
		23.5%	28.3%	25.3%	22.9%	100.0%
Part	2.	Val	ue	df	Statistical sign	ificance
Pear So Te	son Chi- quare est	2.9	06	3	0.406	

the priority for cycling tourists when selecting certain parts of the Route. Some of the equally represented answers were about mobility and the use of individual attractions, autonomy in the choice of accommodation facilities and restaurants. An interesting reason was the fact that it is important that cyclists do not have to ask where to go and a good signalling system reduces the possibility of getting lost to a minimum. A few participants (5.4%) also cited the opportunity to meet other cyclists, which is only possible when cycling is conducted on a well-marked Route. Table 9, Part 2 shows that there was no difference in the responses of both genders.

		<b>Part 1</b> . The reason for choosing the marked roads and cycling with the help of maps and tourist guides?					
		Cycling in the safest roads for cyclists	Mobility in terms of selection of attraction	Autonomy in the choice of accommodation facilities etc.	The possibility of losing cyclists is minimal	Chance to meet other cyclists	In total
Sex	Female	40	6	8	8	3	65
		24.1% 3.6%	3.6%	<b>4.8%</b>	4.8%	1.8%	39.2%
	Male	72	9	7	7	6	101
		43.4%	5.4%	4.2%	4.2%	3.6%	60.8%
	Total	112	15	15	15	9	166
		67.5%	9.0%	9.0%	9,0%	5.4%	100.0%
Part	2.			Value	df	Statis	stical $(p)$
Pear	son Chi-S	quare Test	-	3.220	4	0.5	522

Table 9. The reason for choosing the marked roads and cycling with help of maps and tourists guides.

Source: Research by authors.

### Table 10. Kmo and Bartlett's test.

Kaiser-Meyer-Olkin Measure of Sampl	ling Adequacy	0.467
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	44.913 10 0.000

Source: Research by authors.

## Table 11. Factor analysis.

	Initial	Extraction
Rating the quality of roads on the section: Bijelo Brdo - Petrovaradin	1.000	0.751
Are you satisfied with the quality of existing maps and guides?	1.000	0.788
What is missing with existing signalling and existing maps of a given space?	1.000	0.724
The reason for choosing the marked roads and cycling with the help of maps and tourist guides?	1.000	0.675
Rating the quality of road signs	1.000	0.798

Table 12.	Total varianc	e explained.							
		Initial eigenva	lues	Extra	action sums of squa	ared loadings	Rot	ation sums of squa	red loadings
Component	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
_	1.384	27.676	27.676	1.384	27.676	27.676	1.311	26.224	26.224
2	1.308	26.162	53.837	1.308	26.162	53.837	1.261	25.211	51.435
e	1.044	20.885	74.723	1.044	20.885	74.723	1.164	23.288	74.723
4	0.661	13.220	87.943	Ι	I	I	I	I	I
5	0.603	12.057	100.000	I	I	I	I	I	I
Source: Resea	rrch by author.	s.							

		N	%
Cases	Valid	145	81.9
	Excluded <sup>a</sup>	32	18.1
	Total	177	100.0
Cronbach's Alpha		N of	Items
0.197			11

Table 13. Cronbach's alpha test.

Source: Research by authors.

Since the factor analysis uses variations between variables, it should be checked before the procedure whether the variables are correlated, and Bartlett's Test of Sphericity is used for this purpose. If Bartlett's Test of Sphericity is not statistically significant, the Factor analysis does not make sense. In Table 10 it was shown that there was statistical significance and that the calculations can be continued.

The factor loadings tell how the observed variables are related to the latent factors. Loadings range from -1 to +1. Loadings that are close to zero mean that the observed variable is not strongly related to that factor. In Table 11 it was shown that the observed variable is related to that factor.

In the first three columns of Table 12 (Initial eigenvalues) there are the data for all the factors, while in the next three columns (Extraction sums of squared loadings) there are only the factors that meet the criteria to be retained (value above 1) and finally the eigenvalues of rotating factors.

The reliability of the subscales components in our study is quite high (Table 13 shows the value of Cronbach's Alpha = 0.197), because the values of Cronbach's Alpha coefficient that exceed the value of  $\geq 0.70$  are considered appropriate.

#### 5. Conclusion with proposed corrective measures

Quality leads to the success of tourism development in any destination. In this paper, the primary goal was to present the current state of the quality of the tourist facilities supplied on the Route from Bijelo Brdo to Petrovaradin and to determine whether there is general interest for the development of this form of sport and recreational tourism. Hence, it was necessary to predict appropriate measures to improve the quality of the facilities. This paper shows only part of a wider research project conducted in 2010, and only parts of the research related to the quality of supply were used in this paper. The method of direct examination was applied, and the chi-square test was used to determine the deviation from the expected value. The analysis of the data led to the conclusion that the facilities offered are at a relatively low level of quality, which confirms the thoughts at the beginning of the research, and that there is a need to make appropriate efforts to improve the quality of supply in a given cycle tourism route.

The visitors were satisfied with the quality of roads that were selected and their security, while other categories received lower grades, and thus the hypotheses of lower rank were confirmed. This includes signalling system (maps, guides, accommodation and catering signalling capacity, marked by weight, and all grades of natural and cultural resources). Bearing in mind that cycling in Europe is an increasing market, it is clear that standardisation of many segments of the Route is needed. Danube cycling route (DBR) through Serbia and Croatia is labelled EuroVelo 6, which means it is on

the route of the Atlantic - Black Sea European Cyclists Federation (www.dun avskastrategija.rs; www.ciklonaut.com). There are predictions that European cycling tourism could make a profit of £14 billion within 20 years (Vujko & Plavsa, 2011c). Among the development priorities will be expanding the network of cycling routes of EuroVelo and striving to create a network that would enable cyclists to visit all the countries of the European Union. Travelling by bicycle, where cycling is the main motivation for travel and basic form of transportation in 2010, accounted for as much as 2-4% of the total trips in some European countries, and there are plans to double or triple this number in the forthcoming decades (Cope & Doxford, 1998, www.sustrans.co.uk). Ouality in today's conditions of competition has become one of the key factors for survival in the market (Cooper, 2000; Jan, 2002; Kotter & Schlesinger, 1991; Robinson, Hichens, & Wade, 1978; Vujko, 2012). Satisfied cycle tourists would represent a longterm source of income for both Serbia and Croatia. One way of doing this would be through positive propaganda, which could be carried out, thus contributing to the new, potential cycle tourists. Their satisfaction would lead to the networking of a number of other destinations, which would mean expanding the Route. One thing is certain: development of cycle tourism in a tourist destination would have long-term positive economic effects that greatly contribute to the revival of rural areas and retaining young people in the villages.

The effects of cycle tourism development would be more far-reaching than it currently looks, and both natural and cultural resources will be improved. Exploring the cultural attractions would be possible with visits to places of interest, museums and other cultural facilities that could be organised in advance and that could be located on maps and guides as well as other places of interest to visit. Soon, the material base of tourism adapted to cycle tourists will be developed, so that this kind of tourism, in the future, will bring many benefits and changes throughout the region. We came to the conclusion that one of the main measures of improving the quality of services on this leg of the Route, as well as in all other sections, was the standardisation of services. Standardisation in this context would involve the application of a designed system of standards for improving the supply of facilities primarily intended for sports and recreational tourists. Standardisation of services would require multiple levels of service, and one of the first actions would be to categorise accommodation facilities, and such categorisation would indicate that a particular accommodation facility is adapted to cycle tourists and other types of sports and recreational tourists.

One of the examples of good practice is certainly Slovenia. Slovenia has developed its own standards for defining specific areas suitable for the development of sports and recreational tourism. These destinations are very well-marked and labelled, and there are complete systems of all cycling routes, bike and hiking trails as well as additional opportunities for the use of complementary activities in certain sections (horse riding, paintball, paragliding, etc.). The destinations have thematic accommodation facilities adapted for sports and recreational tourists, e.g. they are staying in the hotels, campsites or tourist farms; the categorisation is marked by bicycles (each bike is equivalent to one star); there are well-trained guides; at each destination there are points where one can rent a bike and have it serviced (www.slovenia.info). As quality is one of the basic requirements of business and also the survival of the tourism market, the European Union has taken steps to standardise quality. The specialised agency for standardisation, the International Organisation for Standardisation (ISO), has made a series of standards that are designed to provide a universal model of quality (www.iso.org). The introduction of such a set of standards along the Route would be a precondition for its survival on the market. ISO 9,000:2000 standards would be a good basis for establishing quality systems because they provide detailed guidance to assist the various stakeholders in tourism along the Route during their implementation, as well as later during the application of the system of control and quality improvement.

#### References

- Botti, L., Peypoch, N., & Solonandrasana, B. (2008). Time and tourism attraction. *Tourism Management*, 29, 594–596.
- Cracolici, M. F., & Nijkamp, P. (2009). The attractiveness and competitiveness of tourist destinations: A study of Southern Italian regions. *Tourism Management*, 30, 336–344.
- Cooper, L. (2000). Strategic marketing planning for radically new products. *Journal of Marketing*, 64(1), 1–15.
- Cope, A. M., & Doxford, D. (1998). Monitoring tourism on the UK's first long distance cycle route. *Journal of Sustainable Tourism*, 6, 210–223.
- Cope, A. M., & Doxford, D. (1998). *Visitor Monitoring of the C2C Cycle Route 1997*. Sunderland: School of Environment.
- Gajic, T. (2009). Management of Tourist Demands, Offers and Sustainable Development of Rural Tourism in Southern Backa Region, Academica Turistica. *Journal for Theory and Practice of Tourism, 1/2,* 17–24.
- Gajic, T. (2010). Possibilities and problems of tourist sector in employment stimulation on the territory of Vojvodina, Revista de Turism. *Journal of Tourism, Romania, 10/2010*, 32–41.
- Gibson, H. (2004). Moving beyond the 'what is and who' of sport tourism to understanding why. *Journal of Sport Tourism, 9*, 247–265.
- Hayward, P. (2001). Leisure and tourism, Heinemann GNVQ intermediate. Oxford: Heineman.
- Hudson, S. (2003). Sport and adventure tourism. Binghamton: The Haworth Press Inc.
- Hudson, S., Hinch, T., Walker, G., & Simpson, B. (2010). Constraints to sport tourism: A crosscultural analysis. *Journal of Sport and Tourism*, 15, 71–88.
- Lynch, P., & Morrison, A. (2007). The role of networks. In E. J. Michael (Ed.), *Micro-clusters and networks. The growth of tourism* (pp. 43–62). Amsterdam: Elsevier.
- Jan, Y. (2002). A three-step matrix method for strategic marketing management. Marketing Intelligence and Planning, 20, 269–272.
- Kotter, J., & Schlesinger, L. (1991). Choosing strategies for change. *Harvard Business Review*, 24–29.
- Matthew, L. (2009). Reinventing the wheel: A definitional discussion of bicycle tourism. *Journal* of Sport & Tourism, 14, 5–23.
- Paul, D., Lumstdon, L., & Weston, R. (2009). Visitor expenditure: The case of cycle recreation and tourism. *Journal of Sport & Tourism*, 14, 25–42.
- Robinson, S., Hichens, R., & Wade, D. (1978). The directional policy matrix-tool for strategic planning. Long Range Planning Journal, 11, 8–15.
- Ritchie, B. W., & Hall, C. M. (1999). Bicycle tourism and regional development: A New Zealand case study. Anatolia: An International Journal of Tourism and Hospitality Research, 10, 89– 112.
- Simonsen, P., & Jorgenson, B. (1998). Cycle tourism: an economic and environmental sustainable form of tourism? Unit of Tourism Research. *Research Centre of Bornholm*. Retrieved from http://www.crt.dk/Pdf/Rep/0058.pdf
- Stokes, R. (2006). Network-based strategy making for events tourism. European Journal of Marketing, 40, 682–695.
- Torkildsen, G. (2005). Leisure and recreation management (5th ed.). Abingdon: Routledge.
- Tuppen, J. (2000). The restructuring of winter sports resorts in the French alps: Problems, processes and policies. *International Journal of Tourism Research*, *2*, 327–344.
- Vujko, A. (2011). Fruska gora mountain and mountains of vrsac the present and future destinations of sport and recreational tourism, doctoral thesis. Novi Sad: Department of Geography, Tourism and Hotel Management.
- Vujko, A., & Plavsa, J. (2011a). Opportunities for the development of paintball as part of sports recreational and anti-stress tourism in Fruska Gora Mountains (Serbia), in Geo. *Journal of Tourism and Geosites*, 4, 95–106.

- Vujko, A., & Plavsa, J. (2011b). Networking of fruska gora lakes tourist offer through system of cycle paths: case study sot. Bruje and Moharac Serbia. Turizam, 15, 1–10.
- Vujko, A., & Plavsa, J. (2011c). The influence of "Danube cycle route" to the development of sports and recreational tourism of Fruska gora mountain (Serbia), Contemporary Trends in Tourism and Hospitality – CTTH 2011 (pp. 49–50). Novi Sad: Department of Geography, Tourism and Hotel Management.
- Vujko, A. (2012). Positive aspects of the cycling tourism development on the tourist destination case study Fruska Gora Mountain. TIMS. Acta, 6, 19–28.
- Wasche, H., & Woll, A. (2010). Regional sports tourism networks: A conceptual framework. Journal of Sport and Tourism, 15, 191–214.
- Weed, M. (2001). Towards a model of cross-sectoral policy development in leisure: The case of sport and tourism. *Leisure Studies*, 20, 125–141.
- Weed, M., & Bull, C. (2004). Sports tourism: Participants, policy and providers. Oxford: Elsevier Butterworth-Heinemann.
- Weed, M. (2008a). Sport tourism experience. Journal of Sport and Tourism, 13, 1-4.
- Weed, M. (2008b). Sports tourism theory and method Concepts, issues and epistemologies. In M. Weed (Ed.), Sport & tourism. A reader (pp. 12–23). London: Routledge.
- Weed, M. (2011). Methodology and method in sport & tourism. Journal of Sport and Tourism, 16, 101–103.